CLAIMS

1 . A fluidic machine comprising: a fixed body (1,2;101,102); an external orbital member (7;107) installed in said fixed body (1;101), supported and guided by said fixed body for rotation around a first rotational axis, said external orbital member (7;107) having internal gear teeth comprising a first teeth number; a transmission member (3;103) installed in said fixed body (2;102), supported and guided by said fixed body for rotation around a second rotational axis not coincident with said first rotational axis; an internal orbital member (5;105) supported by said transmission member (3;103) and solid in rotation therewith, said internal orbital member (5;105) having external gear teeth comprising a second teeth number different from said first teeth number, and said internal orbital member (5;105) extending within said external orbital member (7;107) and having its own external gear teeth meshing, with relative (namely, only partial) fluid seal, with the internal gear teeth of the external orbital member (7;107), thus determining among the gear teeth of the two orbital members spaces whose volume is variable during the rotation; said fixed body (1;102) having two chambers (22,23;122,123), connected with a low pressure connection (20;120) and to a high pressure connection (21;121), respectively; and one of said members being so shaped as to act as a distributor among said variable volume spaces and said chambers of the fixed body;

characterized in that one of said orbital members (5,7;105,107) is mounted axially displaceable, with relative fluid seal, in the component part (3,1;103,101) by which it is supported; that the machine comprises a push member (6;106) acting against said axially displaceable orbital member (5,7; 105,107) for pushing the same in the direction producing a more extended engagement with the other orbital member (7,5;107,105); and that the machine comprises a piston (8;108), which is mounted displaceable, with relative fluid seal, within the non-axially displaceable orbital member (7,5;107,105), rests against said axially displaceable orbital member (5,7;105,107), and is subjected, on the side opposite the axially displaceable orbital member, to the pressure of the high pressure connection (21;121); whereby said axially dis-

placeable orbital member is pushed by the pressure of the high pressure connection (21;121) to withdraw, against the action of said push means, within the part supporting the same, this latter along with said piston delimiting the operatively active portion of the two mutually meshing orbital members (5,7; 105,107), namely, the swept volume of the fluidic machine.

2 . A fluidic machine according to Claim 1, characterized in that the external orbital member (7;107) is mounted in a fixed axial position, and the internal orbital member (5;105) is mounted axially displaceable, with relative fluid seal, within the transmission member (3;103), this latter having an internal outline corresponding to the external outline of the internal orbital member (5;105), which penetrates in part therein with relative fluid seal.

3 . A fluidic machine according to Claim 2, characterized in that said push means (6;106) comprise a compression spring (6;106) acting between a surface of said internal orbital member (5;105) and an end surface of a cavity (32;132) of the transmission member (3;103), in which cavity is mounted the internal orbital member (5;105).

4 . A fluidic machine according to Claim 2, characterized in that the internal orbital member is mounted in a fixed axial position, and the external orbital member is mounted axially displaceable, with relative fluid seal, within said machine body.

5 . A fluidic machine according to Claim 4, characterized in that said push means comprise a compression spring acting between a surface of said external orbital member and an end surface of a cavity of the machine body, in which cavity is mounted the external orbital member.

6 . A fluidic machine according to Claim 1, characterized in that the external orbital member (7;107) has internal gear teeth comprising five teeth, and the internal orbital member (5:105) has external gear teeth comprising four teeth.

7 . A fluidic machine according to Claim 1, characterized in that the machine body (1,2;101,102) is formed of two mutually connected parts, a first part forming an operative body (1;101) which contains the external orbital member (7;107), and a second part forming a supporting body (2;102) which

contains the transmission member (3;103); one of said body parts being provided with the low pressure connection (20;120) and the high pressure connection (21;121).

8 . A fluidic machine according to Claim 7, characterized in that the low pressure and high pressure connections (20,21) are located in the body part forming a supporting body (2).

9 . A fluidic machine according to Claim 7, characterized in that the low pressure and high pressure connections (120,121) are located in the body part forming an operative body (101).

10 . A fluidic machine according to Claim 1, characterized in that said member intended to act as a distributor is said transmission member (3).

11. A fluidic machine according to Claim 1, characterized in that said member intended to act as a distributor is said external orbital member (107).

12 . A fluidic machine according to any of the foregoing Claims, characterized in that it forms a hydraulic machine.

13 . A fluidic machine according to any of the foregoing Claims, characterized in that it forms a pneumatic machine.

14 . A fluidic machine according to Claim 12, characterized in that it forms a pump intended to maintain under pressure the lubricant oil of an engine, especially an automotive engine.

15 . A fluidic machine whose swept volume varies as a function of the pressure, characterized by the peculiarities, arrangements and operation, as they appear from the above description and appended drawings, or replaced by technically equivalent means, taken in their whole, in their various combinations or separately.